

# Application to the Program Life 2019

## Partner Search

PROJECT ACRONYM: LIFESPRIM

PROJECT TITLE: **GREEN INFRASTRUCTURE (GI) AS A TOOL FOR ADAPTATION TO CLIMATE CHANGE IN GDAŃSK - METHOD OF IMPLEMENTING GREEN INFRASTRUCTURE WITH URBAN SURVEY PROSPECTS (SPRIM)**

Lead Organization: **Gdansk Water Ltd.**

Other declared project partners: **City of Gdansk, FRUG, Gdansk Water Foundation, Association of Communes of the Republic of Poland Euroregion Baltic, Polish Ecological Club, Gdansk Economic Development Agency Ltd. (InvestGDA).**

### **Application submission:**

Remaining time to submit a full application to the European Commission by 12/09/2019

### **About LIFE program:**

The LIFE program is the only financial instrument of the European Union devoted exclusively to co-financing projects in the field of environmental and climate protection. Its main purpose is to support the implementation of Community environmental law, the implementation of EU policy in this area, as well as the identification and promotion of new solutions for environmental problems in this nature.

The LIFE Program - Environment and Climate Action Program (2014-2020) was established by Regulation of the European Parliament and of the Council (EU) on 11 December 2013. Implementation of the program has been divided into two settlement periods, under which the so-called Multi-annual Work Programs, within which the EC defines the framework for implementing LIFE in a given period.

Standard co-financing of the LIFE project by the European Commission is up to 60% of the value of eligible costs, and in the case of natural projects serving species and priority habitats up to 75%. Polish Applicants may additionally apply for co-financing the project from national funds of NFEP & WM complementing the financial installation of the project up to 95% of eligible costs (co-financing from the European Commission).

Foreign partners may apply for cover of the remaining 35-40% of own contribution from national or regional environmental institutions (including the Swedish Institute for Swedish partners)

### **WHO WE LOOKING FOR:**

We are looking for LIFE 2019 partners, a traditional project under the sub-program for Climate, priority: adaptation to climate change. The theme of 'developing a method / method of implementing the green infrastructure system (here the green infrastructure is the' + 'city's natural system) as a tool for adapting the city / commune to climate change',

target effects:

- small and medium-sized municipalities from Poland and abroad (EU partners)
- national/regional institutions involved in the promotion of green solutions
- NGOs

- scientific institutions

## **PROJECT RESPONDS TO THE FOLLOWING ENVIRONMENTAL PROBLEMS:**

- Excessive urbanization and sealing of the city (shrinking green areas that can stop excessive surface runoff of rainwater, reduce retention),
- Lack of sustainable management of fresh water resources,
- Climate changes bringing extreme weather conditions (intense rain, floods, droughts) - adaptation of the city,
- Shrinking natural resources - growing demand for drinking water, reduction of water quantity and deterioration of its quality,
- Consumption of groundwater resources that cannot be renewed in the natural hydrological cycle (intense precipitation mainly causes surface runoff of waters, limiting the penetration to the ground and groundwater supply), increasing the degree of pollution of these waters,
- Salinity of groundwater resources, ingestion of salt water to aquifers (coastal areas),
- Water deficit - increasing the number of days without rainfall, rainfall water loss in the rainwater drainage system (unused resources),
- Sustainable development of the city - environmental compensation, attractive space for residents,
- Calculation of ecosystem services, appropriate management of ecosystems,
- Urban stress (microclimate, health of residents, urban heat islands),
- Reduction of the Municipal System of Biologically Active Areas (OSTAB)
- Lack of ecosystem continuity in the city - negative impact on biodiversity, difficult species spread,
- The edge of the contact between the upland and the lower terrace - excessive surface runoff of rainwater,
- Erosion of the valleys material, road pollution, causing impaired water outflow from streets, lowering road safety,
- The formation of a backwater from sea waters as a result of the cumulative impact of wind from sea and increasing level t of watercourses, caused by rainfall, thaws and congestion.

## **RELATIONSHIP WITH NATIONAL AND EU DOCUMENTS**

### **EU ENVIRONMENT LEGAL REGULATIONS**

- ✓ Water Framework Directive
- ✓ The Birds Directive
- ✓ Habitats Directive
- ✓ Union Strategy for the protection of biodiversity

### **POLISH NATIONAL REGULATIONS:**

- ✓ Water Law
- ✓ Law on Nature Protection

### **Strategy documents**

- ✓ Ecological Policy of the State
- ✓ Strategy for the protection of wetlands in Poland

- ✓ National strategy for the protection and sustainable use of biological diversity
- ✓ Strategy of Water Management
- ✓ The Water Policy Project of the State until 2030
- ✓ Provincial Programs of Small Retention
- ✓ Municipal Plan of Adaptation to Climate Change (MPA)
- ✓ Local Spatial Development Plans (LSDP)
- ✓ Study of conditions and directions of spatial development of the city of Gdansk (SUIKZP)
- ✓ Gdańsk 2030 Plus City Development Strategy
- ✓ Forest Management Plan

## **BACKGROUND AND EXPERIENCE**

- Participation in projects:
  - ✓ Fanplesstic-sea project (Interreg BSR 2014-2020 program). Construction of a pilot station, based on a hydrophytic system, for the treatment of rainwater from microplastics.
  - ✓ "Development of hazard information and warning systems, in particular floods for Gdansk and Sopot "as part of the project Gdansk Water Ltd., expanded the measurement network, thanks to which the safety of Gdansk residents in the situation of flooding increased. Hydrological Monitoring System consisting of meteorological measurements and measurements of water levels in various locations of the city.
  - ✓ "Rainwater management system in urban areas - Gdansk City" co-financed from the Infrastructure and Environment Program by National Fund for Environmental Protection and Water Management. The aim of the project was to strengthen the resilience to threats related to climate change concerning water management in the city by improving the rainwater drainage system and thus increasing the flood protection of the city of Gdansk.

Other:

- Doctoral dissertation: dr. eng. arch. Joanna Rayss, pt. "Green infrastructure of the city and rainwater. The potential for sustainable development in Gdansk. " Universal, variant model solutions for the implementation of the Green Infrastructure concept using methods of eco-friendly rainwater management in the city that can be used both in the design of green and gray infrastructure facilities in Gdansk, as well as cities with similar conditions.
- Establishment of Development Projects Department - promotion and implementation of small retention in the city
- Existing concept for "good practices" - reconstruction of ponds located near historical Manors aimed at using the potential of green areas that are free of building, which allow for surface development of water with the participation of hydrophyte plants.
- Rain gardens - from pilot activities to system ones:
  - ✓ creation and publication of the guide: "rain garden in 5 steps" - the first part of the Gdansk guide on small retention,
  - ✓ implementation of 5 pilot rain gardens (total area: 1107 m<sup>2</sup>, total estimated retention capacity: 533 m<sup>3</sup>, over 7,000 plants, in 62 species / variants)
  - ✓ system pilot project: drainage of yards at Stryjewskiego, Wrzosy, Skiby St. (Stogi, Gdańsk)
- Local spatial development plan for the Retention Plan

## **FINAL STAKEHOLDERS OF THE PROJECT IMPLEMENTATION**

- Inhabitants,
- Investors,

- The Directorate of the Expansion of the City of Gdańsk (DRMG),
- developers,
- Infrastructure designers,
- National Forests,
- The Tri-City Landscape Park
- Gdańsk Development Office
- Non-governmental organizations related to environmental protection, naturalists,
- Landscape architects,
- Local governments,
- Road and Green Board,
- General Directorate of National Roads and Motorways,
- Polish Waters,
- Provincial and National Fund for Environmental Protection,
- Universities (including Gdańsk University of Technology),
- Other educational units,
- Neighboring coastal municipalities,
- Other municipalities in the EU,
- Sanitary station,
- Medical University,
- Gdansk Water and Sewage Infrastructure,
- The State and Provincial Geological Institute,
- General and Regional Directorate for Environmental Protection,
- Ministry of the Environment,
- Institute of Meteorology and Water Management,
- 44 cities involved in the preparation of climate adaptation plans.

## **OBJECTIVES**

- Adaptation to climate change,
- Increasing flood safety,
- Protection and recovery of water resources,
- Protection of drinking water resources,
- Reduction in the amount of sanitary sewage (reducing the freshwater outflow to the sanitary network),
- Reducing erosion and costs associated with damage,
- Increasing the efficiency of water and natural resources management,
- Developing a method of creating an effective city ecosystem using SPRIM,
- Increased retention capacity,
- Increased biodiversity,
- Developing tools for sustainable city development,
- Calculation of ecosystem services,
- Developing good practices,
- The Green Infrastructure system as "OSTAB +",
- Entering the rules of the Green Infrastructure for the study of conditions and spatial directions of the city of Gdańsk (at the new edition),
- Increasing the area of wetlands in OSTAB,

- Green public procurement - model environmental criteria in the tender procedure,
- Creation of a universal handbook on the methodology of Green Infrastructure implementation in the city,
- Dissemination of the method of creating Green Infrastructure (GI),
- Application of Green Infrastructure for stormwater outflow from industrial areas,
- Raising awareness among project stakeholders.

## ACTIONS

- Preparatory:
  - ✓ Identification, analysis and evaluation of risk
  - ✓ Detailing the initial state (status "0") in the form of an environmental report for the implemented "good practices"
  - ✓ Development of project and technical documentation for "good practices"
  - ✓ Development of guidelines for the Retention Park project - concepts and consultations, construction project
  - ✓ Public consultations (District Council, NGOs)
  - ✓ Preparation of tender documentation and tender
- Development of a model tender procedure - environmental aspects,
- Involvement of universities (including PG) - concepts for further investments, dissemination of the idea of implementing Green Infrastructure (GI) after the project ("After LIFE")
- Competition with the prize for the best concept of implementing GI in the city – for the universities
- Implementation of the model "Good Practices",
- Social involvement in the performance process,
- Creating the Gdańsk Blue Cards for Small Retention - a tool for recording and controlling the created SPRIM, a map with locations,
- Creating a hydrological sensitivity map,
- Adaptation of ecosystem calculation methods for the needs of the city,
- Evaluation of activities and conclusions for the textbook,
- Development of the GI implementation method
- Creating and running a website / web-platform of the project,
- Publication of the textbook,
- Dissemination of the textbook and promotion of the program (project effects),
- Seminars, workshops, trainings, consultations,
- Consultations with designers - substantive support, reconciliation of project documentation,
- Substantive supervision over municipal investments, coordination of activities (from retention reservoirs to public facilities),
- Development of standards: urban street, urban greenery, drainage, functional and utility programs (Gdańsk water policy) - various municipal companies that work together,
- Cooperation with residents, Councils of Districts, social and environmental organizations,
- Consulting the method of operation with project partners.

## Source of land selection for the implementation of "Good Practices":

- **Initiative of residents** – recorded problems with flooding of urbanized areas with water (rainwater and drainage / source) flowing down from the overgrowing edge zone of the upland

(impermeable clay formation) of the forest, including the Tri-City Landscape Park. These are also valuable areas of activity for walking residents and a buffer area for forest areas

- **Self-observation of the problem** flooding in the vicinity of forgotten, historical ponds once located in the edge zone - historic Manors, at Polanki St. (functional program of landscaping around the Manors was to a large extent based on a system of ponds with a retention function)

## FINAL EFFECTS

- Increasing the number of urban wetlands,
- Improvement of the hydrological situation in the catchment - offloading the rainwater collector
- Reducing the amount of water in the rainwater and sanitary sewage system,
- Increased field retention,
- Comfort in the city, active and passive recreation (facilities for recreation), increase in the aesthetics of the city,
- Increased flood safety,
- Delay of runoff of rainwater to the Gulf of Gdansk,
- Improvement of water quality in the Baltic Sea,
- Reducing the phenomenon of "backwater" (rising level of Baltic waters),
- Increasing the number of aware people (involved in the implementation),
- Enriching the curriculum at the university, involving students in the creation of projects,
- Change of standards for the implementation and maintenance of the elements of the city's green infrastructure - biodiversity, multifunctionality,
- Good practice, model SIWZ,
- Technical and construction documentation for Retention Park,
- Development of methods of implementing GI using SPRIM,
- Published textbook,
- Number of realized municipalities, potential for implementation,
- Sites for people involved in the project,
- Gdansk Blue Card for Small Retention - a tool for recording and control of created SPRIM, a map with locations,
- Map of hydrological sensitivity - a planning tool to help protect wetlands,
- Extensive SPRIM elements,
- Increase in the number of plants - increase in biodiversity, increase in the amount of absorbed CO<sub>2</sub> - climate protection, improvement of air quality,
- Increased effective management of natural and water resources,
- Website, internet platform,
- Number of people participating in conferences and trainings....

## BUDGET:

The final cost of the project depends on the number of domestic and foreign partners  
Apart from standard tasks, pilot investment may be included

As a part of the investment, we also want to supplement the range of Green infrastructure solutions that were implemented in City of Gdansk for new elements to make the case study exhaust the maximum number of blue-green solutions so that it can be verified how green infrastructure works (simple

parameters like the amount of m<sup>3</sup> of water being used. investments of proven solutions in other municipalities - which will allow them to verify their universality.

#### HOW TO CONTACT US:

Scientific and substantive support:

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<https://appear.in/sb-ycgn-conference-room>